



DAVID L. SEDLAK

- Professor of Civil & Environmental Engineering

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Teaching and Research

Professor Sedlak teaches graduate courses in environmental chemistry, water quality engineering and ecological engineering. He also teaches a freshman class in engineering design and analysis. He is group leader for the environmental engineering program and an undergraduate advisor for undeclared students in the College of Engineering.

Professor Sedlak anticipates teaching the classes listed below in the next two academic years. Full descriptions of these classes can be seen in the on-line course catalog.

Semester	Course No.	Course Title	Meeting Times
Fall 2005, 2006	CE 115	<u>Water Chemistry</u>	Tu/Th 11-12:30
Fall 2005	E 10	<u>Engineering Design and Analysis</u>	MWF 11-12
Spring 2007	CE 290C	<u>Watersheds and Water Quality</u>	
Spring 2006, 2007	CE 217	<u>Environmental Chemical Kinetics</u>	MWF 10-11<!--[if !supportEmptyParas]--> <!--[endif]-->

Professor Sedlak's research interests are related to the fate and transport of pollutants in the aquatic environment. Recent developments, descriptions of representative projects and publications are listed below.

Ongoing research projects

- The Fate of Hormones in the Aquatic Environment

- [The Fate of Wastewater-Derived Contaminants in Effluent-Dominated Waters](#)
- [Formation and Fate of NDMA in Water Recycling Systems](#)
- [Oxidation of Contaminants by Iron Nanoparticles in the Presence of Oxygen](#)
- [News Story About Recent Publication](#)

A Few Recent Publications

[The underlined text will lead you to the abstract for the paper. The DOI will lead you to the full paper if you are viewing this page from a site that has a license for the journal where the paper was published.]

- Hsu-Kim H. and Sedlak D.L. (2005) [Similarities between inorganic sulfide and the strong Hg\(II\)-complexing ligand in municipal wastewater effluent](#). *Environ. Sci. Technol.* 39(11):4035-4041. DOI: 10.1021/es050013i
- Mehrotra A.S. and Sedlak D.L. (2005) [Decrease in net mercury methylation rates following iron amendment to anoxic wetland sediment slurries](#). *Environ. Sci. Technol.* 39, 2564-2570. DOI: 10.1021/es049096d
- Gray J.L. and Sedlak D.L. (2005) [The fate of estrogenic hormones in an engineered treatment wetland with denitrifying macrophytes](#). *Water Environ. Res.*, 77, 24-31.
- Sedlak D.L., Deeb R.A., Hawley E.L., Mitch W.A., Durbin T.D., Mowbray S., Carr S. (2005) [Sources and fate of nitrosodimethylamine and its precursors in municipal wastewater treatment plants](#). *Water Environ. Res.*, 77, 32.
- Joo S.H., Feitz A.J., Sedlak D.L. and Waite T.D. (2005) [Quantification of the oxidizing capacity of nanoparticulate zero-valent iron](#). *Environ. Sci. Technol.*, 39, 1263-1268. DOI: 10.1021/es048983d
- Kolodziej E.P., Harter T. and Sedlak D.L. (2004) [Dairy wastewater, aquaculture and spawning fish as sources of steroid hormones in the aquatic environment](#). *Environ. Sci. Technol.*, 38, 6377-6384. DOI: 10.1021/es049585d
- Pehlivanoglu E., and Sedlak D.L. (2004) [Bioavailability of wastewater-derived organic nitrogen to the alga *Selenastrum Capricornutum*](#). *Water Research*, 38(14-15): 3189-3196. DOI:10.1016/j.watres.2004.04.027
- Mitch W.A. and Sedlak D.L. (2004) [Characterization and fate of NDMA precursors in municipal wastewater treatment plants](#). *Environ. Sci. Technol.*, 38, 1445-1454.
- Pinkston, K.E. and Sedlak D.L. (2004) [Transformation of aromatic ether- and amine-containing pharmaceuticals during chlorine disinfection](#). *Environ. Sci. Technol.*, 38, 4019-4025. DOI: 10.1021/es0353681i
- Kolodziej E.P., Gray J.L. and Sedlak D.L. (2003) [Quantification of steroid hormones with pheromonal properties in municipal wastewater effluent](#). *Environmental Toxicology and Chemistry*. 22, 2622-2629.
- Mehrotra A.S., Horne A.J. and Sedlak D.L. (2003) [Inhibition of net mercury methylation by iron in *Desulfobulbus propionicus* cultures: implications for engineered wetlands](#). *Environ. Sci. Technol.* 37, 3018-3023. DOI: 10.1021/es0262838
- Hsu H. and Sedlak D.L. (2003) [Strong Hg\(II\) complexation in municipal wastewater effluent and surface water](#). *Environ. Sci. Technol.* 37, 2743-2749. DOI: 10.1021/es026438b
- Gerecke A.C. and Sedlak D.L. (2003) [Precursors of N-Nitrosodimethylamine \(NDMA\) in natural waters](#). *Environ. Sci. Technol.* 37, 1331-1336. DOI:10.1021/es026070i

Links

- [Complete Curriculum Vitae](#)
- [Environmental Engineering Group](#)
- [Department of Civil and Environmental Engineering](#)
- [UC Berkeley](#)

Recent Graduates

- Bill Bedsworth (Bridgespan Group, San Francisco)
- James Gray (Postdoc, USGS Boulder, CO)
- Helen Hsu (Assistant Professor, Duke University)

- Ed Kolodziej (Postdoc, UC Berkeley)
 - Anna Mehrotra (Consultant, CDM Boston, MA)
 - William Mitch (Assistant Professor, Yale University)-
 - Elif Pehlivanoglu-Mantas (Lecturer, Istanbul Teknik Universitesi, Turkey)
 - Karen Pinkston (US Nuclear Regulatory Commission)
 - Alavanja Ridge (US Nuclear Regulatory Commission)
 - Laurel Schaider (Postdoc/Harvard University)
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